

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A power semiconductor module comprising
- at least one semiconductor chip made of a semiconductor material and having a first and a second main ~~electrode~~ electrodes,
 - a first and second main ~~connection~~ connections,
 - a contact lamina in electrical contact with the first main electrode and the first main connection,
 - the contact lamina containing an alloying partner ~~and it being possible for a~~ capable of forming a eutectic ~~to be formed~~ between the alloying partner and the semiconductor material,
 - the contact lamina being coated with an electrically conductive protective layer,

wherein

- the protective layer has at least one electrically conductive base layer applied on the contact lamina, and
- an electrically conductive surface layer, which forms the an external contact area,

and in that

- the base layer and the surface layer substantially comprise different materials.

2. (Currently Amended) The power semiconductor module as claimed in claim 1, wherein

- the base layer ~~substantially~~ comprises Ni and ~~preferably~~ has a thickness of ~~between~~ approximately 1 μm and to 15 μm , ~~preferably between 2 μm and 8 μm .~~

3. (Currently Amended) The power semiconductor module as claimed in claim 1, wherein

- the surface layer has a thickness of ~~between~~ approximately 0.1 μm and to 5 μm .

4. (Currently Amended) A power semiconductor module comprising
- at least one semiconductor chip made of a semiconductor material and having first and a second main electrodes,
 - first and second main connections,
 - a contact lamina in electrical contact with the first main electrode and the first main connection,
 - the contact lamina containing an alloying partner capable of forming a eutectic between the alloying partner and the semiconductor material,
 - the contact lamina being coated with an electrically conductive protective layer,

wherein

- the protective layer has at least one electrically conductive base layer applied on the contact lamina, and
- an electrically conductive surface layer, which forms an external contact area,

~~The power semiconductor module as claimed in claim 1, wherein~~

- the surface layer substantially comprises Ru,
- an electrically conductive intermediate layer is provided between the surface layer and the base layer, said intermediate layer substantially comprising Au and ~~preferably~~ having a thickness of approximately 0.2 μm , and
- the base layer ~~preferably~~ has a thickness of ~~between~~ 5 μm and to 12 μm .

5. (Previously Presented) The power semiconductor module as claimed in claim 1, wherein

- the semiconductor chip internally has an IGBT structure or a diode structure.

6. (Currently Amended) The power semiconductor module as claimed in claim 1, wherein

- the base layer comprises a good covering material, and in that
- the surface layer comprises a material having one or more of the following properties:
 - a non-oxidizable, preferably exhibiting little chemical reactivity,
 - b does not react chemically with a first electrode metallization of the first main electrode and exhibits neither contact corrosion nor material diffusion,
 - c has a low coefficient of friction,
 - d can be deposited at temperatures at which the contact layer is not damaged or deformed.

7. (New) The power semiconductor module as claimed in claim 2, wherein the thickness of the base layer is approximately 2 μm to 8 μm .